CAPITAL IMPROVEMENT PROGRAM

Page #

52	*Public Works - Operations Division*	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
53	Road Resurfacing Program	500,000	482,800	620,400	620,400	474,800	450,000	450,000	450,000	450,000	450,000
55	Road Resurfacing Program - UNH	123,200									
56	Crack Seal Program	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
57	Sidewalk Improvement Program	91,000	30,700	41,000	65,800	79,200	40,000	40,000	40,000	40,000	40,000
59	Drainage System Rehabilitation Program	864,250	85,000	85,000	85,000	85,000	85,000	85,000	85,000	85,000	85,000
60	Stormwater Management Program - Permit Compliance	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
62	Facility Infrastructure Asset Management Plan	15,000									
63	Dump Truck Replacement (3-5 Ton)	259,000	230,000	241,250	253,300		266,000			279,300	
69	Madbury Road Complete Streets Project - Roadway, Sidewalk, Drainage Construction	2,286,000	2,298,000	2,257,000							
72	Decorative Light Pole Painting	50,000									
73	Pedestrian Safety Improvements	72,000									
74	Deicing Material Reduction Program - Salt Brine Maker and Tank	45,000									
75	Pickup Truck Replacement (3/4 Ton)	71,000									
76	Wagon Hill Farm Living Shoreline - Phase 2	1,994,550									
77	Motor Vehicle Fluid Distribution System Replacement		15,000								
78	Vibratory Roller		25,000								
79	Mobile Air Compressor Replacement		35,000								
80	Front End Loader Replacement			295,000							
81	Longmarsh Road Bridge Replacement			1,300,000							
82	Engineering Jeep Replacement			37,000							
83	Sidewalk Plow Tractor Replacement				240,000						
84	Pickup Truck Replacement (Dodge Ram)				67,000						
85	Rubber Tired Excavator Replacement (Cost share with Water Fund 25%)							232,500			
	PW - OPERATIONS TOTALS	6,431,000	3,261,500	4,936,650	1,391,500	699,000	901,000	867,500	635,000	914,300	635,000

CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2024*	**PROJECT COST**	*$500,000*
DESCRIPTION	*Road Program*	**DEPARTMENT**	*Public Works - Operations*

IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Dept. Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION)

In 2021 Durham Public Works adopted pavement management system software, known as StreetLogix, which provides a baseline condition assessment for the over 60 miles of Town maintained roadways including sidewalks, curb ramps and related roadway infrastructure. This software uses custormized and standard algorithms and deterioration curves which allow for the strategic planning of the annual Road Program. Each year an inspection of the candiate and other roadway identifed in our 5 year action plan takes place. Roadways outside of the action plan are also inspected to validate deterioration predictions. These assessments help inform decision making by developing a Pavement Condition Index or PCI. A roadway PCI is generated based on pavement distresses and their severity for each segment in the Town's roadway network. StreetLogix then allows for various scenarios to be reviewed to aid in prioritizing pavement rehabilitation and preventive maintenance repair projects. The software analyzes which type of rehabilitation treatment would be the most economical and appropriate for each road segment. The PCI, rehabilitation treatment cost, repair service life and traffic volume of the roadway are used to calculate the repair priority index (RPI) which prioritizes the Town's rehabilitation projects for a given year. Roads are then selected for rehabilitation based upon a combination of StreetLogix output, engineering judgment, and coordination with other planned Town and 3rd party utility projects. Sound pavement management emphasizes adequate investment in road rehabilitation, drainage system improvements, as applicable, combined with preventive and routine maintenance such as crack sealing and full depth patching.

The majority of funds requested for the fiscal year 2024 Road Program will be allotted to the reconstruction of Dennison Road. The Reconstruction Project will include the replacement and ADA compliant asphalt sidewalks from Woodman Road to Bagdad Road, drainage and sewer collection system infrastructure upgrades, and a reclamation of the entire roadway. Additional funding above the original FY23 request of $389,663 for this project is required to account for increases in construction costs. Also included in the fiscal year 2024 Road Program is a reclamation and repaving of Worthen Road which is experiencing significant rutting, alligator cracking, aggregate loss, and heaving, resulting in uneven surfaces and altered stormwater conveyance patterns. Furthermore, Britton Lane and Spruce Wood Lane will receive a 1.5" shim and overlay treatment.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$	15,000	
	FINAL DESIGN AND ENGINEERING	$	25,000	
	CONSTRUCTION ENGINEERING OVERSIGHT	$	5,000	
	CONSTRUCTION COSTS	$	519,300	
	CONTINGENCY	$	-	
	TOTAL PROJECT COST	$	564,300	
FINANCING	OPERATING BUDGET	$	500,000	TOWN ADMINISTRATOR
	UNH - CASH	$	-	REDUCED TO $500,000
	BOND - TOWN PORTION	$	-	
	UNH PORTION	$	-	
	FEDERAL/STATE GRANT	$	-	
	CAPITAL RESERVE ACCOUNT	$	-	
	TOTAL FINANCING COSTS	$	500,000	
IF BONDED:	NUMBER OF YEARS		N/A	
	TOTAL PRINCIPAL	$	-	
	TOTAL INTEREST	$	-	
	TOTAL ESTIMATED COST	$	-	

2024-PAVEMENT + UTILITY PLAN

ROAD NAME	TREATMENT TYPE	UTILITY UPGRADES	MILEAGE ROAD / SIDEWALK	DISTANCE (FT) ROAD / SIDEWALK	LAST TREATMENT	COST
DENNISON ROAD	RECLAIM + 3.5"	DRAINAGE / WW	0.28 / 0.16	1468 / 859	1985	$ 417,513
WORTHEN ROAD	RECLAIM + 3.5"		0.35	1836	2004	$ 116,585
SPRUCE WOOD LANE	1.5" SHIM + OL		0.1	544	2005	$ 15,970
BRITTON LANE	1.5" SHIM + OL		0.12	650	2009	$ 14,240
			0.85 / 0.16		SUBTOTAL	$ 564,308

DURHAM 2024 - 2028 ROAD PROGRAM

PRELIMINARY - SUBJECT TO CHANGE WITHOUT NOTICE

2024-PAVEMENT + UTILITY PLAN

ROAD NAME	TREATMENT TYPE	UTILITY UPGRADES	MILEAGE ROAD / SIDEWALK	DISTANCE (FT) ROAD / SIDEWALK	LAST TREATMENT	COST
DENNISON ROAD	RECLAIM + 3.5"	DRAINAGE / WW	0.28 / 0.16	1468 / 859	1985	$ 417,513
WORTHEN ROAD	RECLAIM + 3.5"		0.35	1836	2004	$ 116,585
SPRUCE WOOD LANE	1.5" SHIM + OL		0.1	544	2005	$ 15,970
BRITTON LANE	1.5" SHIM + OL		0.12	650	2009	$ 14,240
			0.85 / 0.16		SUBTOTAL	$ 564,308

2025-PAVEMENT PLAN

ROAD NAME	TREATMENT TYPE		MILEAGE ROAD / SIDEWALK	DISTANCE (FT) ROAD / SIDEWALK	LAST TREATMENT	COST
MORGAN WAY	1.5" SHIM + OL		0.26	1361	2008	$ 30,320
WILLIAMS WAY	1.5" SHIM + OL		0.26	1365	2008	$ 30,320
TIRRELL PLACE	1.5" SHIM + OL		0.14	748	2008	$ 16,660
JENKINS COURT	1.5" MILL + OL		0.07	370	2011	$ 20,500
NOBLE K. PETERSON DRIVE	FD PATCHING 1.5" SHIM + OL		0.20	1081	1999	$ 30,040
DAME ROAD (Paved Portion)	RECLAIM + 3.5"		0.35	1865	UNKNOWN	$ 98,315
ORCHARD DRIVE	PARTIAL RECLAIM + 3.5"		0.5	2653	2006	$ 123,455
LAUREL LANE	FD PATCHING 1.5" SHIM + OL		0.45	2400	2006	$ 58,864
LANGLEY ROAD	1.5" SHIM + OL		0.61	3241	2008	$ 74,330
			3.41		SUBTOTAL	$ 482,804

2026-PAVEMENT PLAN

ROAD NAME	TREATMENT TYPE		MILEAGE	DISTANCE (FEET)	LAST TREATMENT	COST
DURHAM POINT ROAD WEST	COLD-IN-PLACE RECYCLING + 1.5" or RECLAIM + 3.5"		1.77	9346	2007	$ 620,396
			1.77		SUBTOTAL	$ 620,396

2027-PAVEMENT PLAN

ROAD NAME	TREATMENT TYPE		MILEAGE	DISTANCE (FEET)	LAST TREATMENT	COST
DURHAM POINT ROAD WEST	COLD-IN-PLACE RECYCLING + 1.5" or RECLAIM + 3.5"		1.77	9346	2007	$ 620,396
			1.77		SUBTOTAL	$ 620,396

2028-PAVEMENT PLAN

ROAD NAME	TREATMENT TYPE	UTILITY UPGRADES	MILEAGE	DISTANCE (FEET)	LAST TREATMENT	COST
SPINNEY LANE	RECLAIM + 3.5"		0.15	797	2016	$ 53,896
PARK COURT	RECLAIM + 3.5"	DRAINAGE/WW	0.1	550	2006	$ 54,700
CONSTABLE ROAD	1.5" SHIM + OL		0.15	800	2005	$ 24,032
FALLS WAY	1.5" SHIM + OL		0.2	1078	2005	$ 30,998
TECHNOLOGY DRIVE	1.5" MILL + OL		0.49	2560	2020	$ 186,613
BURNHAM AVENUE	RECLAIM + 3.5"	DRAINAGE/W/WW	1.77	9346	2015	$ 124,554
			2.86		SUBTOTAL	$ 474,793

CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2024*	**PROJECT COST**	*$123,200*
DESCRIPTION	*UNH Road Program*	**DEPARTMENT**	*Public Works- Operations*

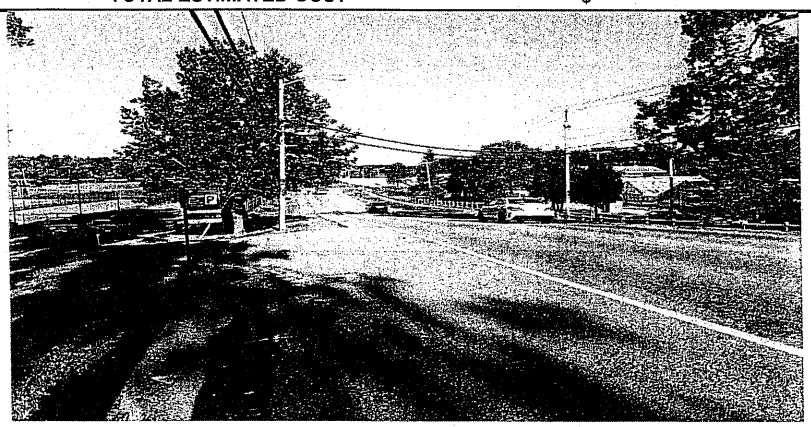
IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

UNH

DESCRIPTION (TO INCLUDE JUSTIFICATION)

The Town of Durham has agreed to include a line item for asphalt and its associated construction activities of University of New Hampshire (UNH) roadways into its Road Program Bid Package so that UNH will receive the Town's discounted rates. In 2024, UNH is planning on a 1.5" Mill + High-Strength Overlay treatment along Academic Way and Mitchell Way. This funding request will include an allowance for the layout and application of MUTCD compliant pavement markings where required and gate box / structure adjustment.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$	-
	FINAL DESIGN AND ENGINEERING	$	-
	CONSTRUCTION ENGINEERING OVERSIGHT	$	-
	CONSTRUCTION COSTS	$	123,200
	CONTINGENCY	$	-
	TOTAL PROJECT COST	$	123,200
FINANCING	OPERATING BUDGET	$	-
	UNH - CASH	$	123,200
	BOND - TOWN PORTION	$	-
	BOND - UNH PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	123,200
IF BONDED:	NUMBER OF YEARS		N/A
	TOTAL PRINCIPAL	$	-
	TOTAL INTEREST	$	-
	TOTAL ESTIMATED COST	$	-



CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2024-2033*	**PROJECT COST**	*$30,000*
DESCRIPTION	*Crackseal Program*	**DEPARTMENT**	*Public Works - Operations*

IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Dept. Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION)

A critical component of a successful road program is adequate investments in pavement preservation. Crack sealing is one pavement preservation operation which will prevent water infiltration into the roadway base and sub-base materials which cause erosion and compromise the structural integrity of the aggregate materials beneath the roadway. This results in premature roadway failure, even more so when the roadway network experiences numerous freeze/thaw cycles. Studies have demonstrated that an effective crack sealing program can prolong pavement life from 3-8 years. This funding request, combined with remaining capital will total $55,000.

Durham Public Works proposes the following roadways tentatively to be crack sealed in 2024: Ross Road, Meader Lane, Ellison Lane, Shearwater Street, Cormorant Circle, Razorbill Circle, Constable Drive, Falls Way, Davis Avenue, Fairchild Drive, Rocky Lane, Adams Circle, Bayview Road, and Wiswall Road.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$	-
	FINAL DESIGN AND ENGINEERING	$	-
	CONSTRUCTION ENGINEERING OVERSIGHT	$	-
	CONSTRUCTION COSTS	$	30,000
	CONTINGENCY	$	-
	TOTAL PROJECT COST	$	30,000
FINANCING	OPERATING BUDGET	$	30,000
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	-
	UNH PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	30,000
IF BONDED:	NUMBER OF YEARS		N/A
	TOTAL PRINCIPAL	$	-
	TOTAL INTEREST	$	-
	TOTAL ESTIMATED COST	$	-

CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2024*	**PROJECT COST**	*$91,000*
DESCRIPTION	*Sidewalk Program*	**DEPARTMENT**	*Public Works - Operations*

IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Dept. Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION)

The rehabilitation and replacement of existing sidewalks including curb ramps is a critical component of the Town's multi-modal trasportation network. The Town's sidewalk inventory consists of approximately 15 miles of sidewalks and curb ramps. Durham Public Works develops repair strategies and project scopes based on the sidewalk and curb ramp condition assessments, field observations and timing of associated infrastructure projects. Preference is given to repairs involving areas within walking distance to schools, ADA compliance, and areas with high volumes of pedestrian traffic. The StreetScan town-wide sidewalk and curb ramp assessment performed in 2020 provided condition and compliance data to help guide Durham Public Works in making decisions around appropriate investments in this critical infrastructure. A sidewalk condition index (SCI) was generated based on pavement and concrete distresses and their severity for each segment in the Town's sidewalk network.

The 2024 Sidewalk Program consists of construction and improvements to the sidewalks located on the Northern side of Dover Road from Young Drive to Bayview Road, the Southern side of Bagdad Road from #57 - #66, and the Northern side of Bagdad Road from Strout Lane to 57 Bagdad Road. The existing asphalt sidewalks will be replaced, granite curbing reset, and ADA compliant ramps installed. Durham Public Works is requesting $91,081 for these improvements to undertake this scope in one single phase and contractor mobilization rather than multiple mobilizations to the same roadway which would elevate costs.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$	-
	FINAL DESIGN AND ENGINEERING	$	-
	CONSTRUCTION ENGINEERING OVERSIGHT	$	-
	CONSTRUCTION COSTS	$	91,000
	CONTINGENCY	$	-
	TOTAL PROJECT COST	$	91,000
FINANCING	OPERATING BUDGET	$	-
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	91,000
	UNH PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	91,000
IF BONDED:	NUMBER OF YEARS		5
	TOTAL PRINCIPAL	$	91,000
	TOTAL INTEREST	$	8,225
	TOTAL ESTIMATED COST	$	99,225

SIDEWALK NAME	TREATMENT TYPE/ACTION	CONDITION	DISTANCE (FEET)		COST
DOVER RD NORTH - YOUNG DR TO BAYVIEW RD	ASPHALT/REPLACE	POOR	610	$	13,183
BAGDAD RD NORTH - STROUT LN TO 57 BAGDAD RD	ASPHALT/REPLACE	POOR	964	$	35,261
BAGDAD RD SOUTH - 57 BAGDAD RD TO 66 BAGDAD RD	ASPHALT/REPLACE	POOR	1308	$	42,637

DURHAM 2024 - 2028 SIDEWALK PROGRAM

PRELIMINARY - SUBJECT TO CHANGE WITHOUT NOTICE

SIDEWALK NAME	TREATMENT TYPE/ACTION	CONDITION	DISTANCE (FEET)	COST
DOVER RD NORTH - YOUNG DR TO BAYVIEW RD	ASPHALT / REPLACE	POOR	610	$ 13,183
BAGDAD RD NORTH - STROUT LN TO 57 BAGDAD RD	ASPHALT/REPLACE	POOR	964	$ 35,261
BAGDAD RD SOUTH - 57 BAGDAD RD TO 66 BADGAD RD	ASPHALT / REPLACE	POOR	1308	$ 42,637
			SUBTOTAL	$ 91,081

2025-SIDEWALK PLAN

SIDEWALK NAME	TREATMENT TYPE/ACTION	CONDITION	DISTANCE (FEET)	COST
MAIN STREET - SMITH PARK LANE TO 21 MAIN STREET	CONCRETE /REPLACE	POOR	245	$ 30,669
			SUBTOTAL	$ 30,669

2026-SIDEWALK PLAN

SIDEWALK NAME	TREATMENT TYPE/ACTION	CONDITION	DISTANCE (FEET)	COST
MAIN STREET - 20 MAIN STREET TO MADBURY ROAD	CONCRETE/REPLACE	POOR	180	$ 16,511
PETTEE BROOK LN - ROSEMARY LN TO MAIN STREET	ASPHALT / REPLACE WITH CONCRETE	POOR	317	$ 24,455
			SUBTOTAL	$ 40,966

2027-SIDEWALK PLAN

SIDEWALK NAME	TREATMENT TYPE/ACTION	CONDITION	DISTANCE (FEET)	COST
MAIN STREET - MILL ROAD TO 35 MAIN STREET	CONCRETE / REPLACE	POOR	357	$ 65,743
			SUBTOTAL	$ 65,743

CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2024*	**PROJECT COST**	*$864,250*
DESCRIPTION	*Drainage System Rehabilitation - Culverts, Outfalls and Drainage Structures*	**DEPARTMENT**	*Public Works*

IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Department Initiative, MS-4 Permit

DESCRIPTION (TO INCLUDE JUSTIFICATION)

The Drainage System Rehabilitation Program funds repair, replacement, additions, and major repairs to the Town's stormwater drainage system consisting of approximately 70 culverts and outfalls, 30 drainage manholes, 525 catch basins, 10 miles of drain lines and 4 bioretention areas and 5 rain gardens. This network of pipes, structures, and structural Best Management Practices (BMP's) are critical components of the Town's transportation network allowing for the compliant management of stormwater while providing crossings of streams, rivers, wetlands, and other water resources. In many cases this infrastructure is original to the roadway construction and has deteriorated and beyond its useful life requiring replacement before failure. The Department's replacement strategy focuses on the highest risk culverts, where failure would have the most severe consequences such as major collector roads, arterial roadways and single ingress and egress neighborhoods while ensuring close coordination with planned road program projects.

Over fiscal year 2023 and into 2024, work will focus on the design, permitting and construction of three major culverts and stream crossings including Ross Road at Ellison Brook, Bennett Road at Woodman Brook, Bennett Road at Corsey Brook and Bennett Road at Laroche Brook. Following the completion of CCTV inspections and on site evaluations in fiscal year 2021, as part of the development of an initial drainage master plan, two culverts on Bennett Road (Woodman and Corsey) and Ross Road were identified as priorities due to their deteriorated condition and the risk of failure they presented. The plan also included four major culverts and stream crossings conveying Littlehale Brook and Pettee Brook under Madbury and Edgewood Roads. These culverts were also identified as high risk based on their condition and potential impacts of failure. They consisted of stacked stone box culverts exceeding 72 feet in length, Corrugated Metal Pipe (CMP), concrete box culverts and Reinforced Concrete Pipe (RCP). Several deficiencies were documented including, falling and shifting stones, spalling concrete with exposed rebar, heavy corrosion and collapsed pipe and unstable headwalls and slopes. Design, permitting and bidding has recently been completed for the Littlehale at Madbury and Edgewood Roads and Pettee Brook at Edgewood Road with contract award expected to take place in September 2023 and construction to commence in spring 2024.

Funding for the Ross Road culvert construction improvements has been included in the American Rescue Plan funding allocation for Fiscal Year 2022 in the amount of $250,000 with additional ARPA funding totaling $101,000 included within the fiscal year 2023 request. Additional funding proposed to be utilized for the Ross Road construction, planned for 2024 subject to finalization of design and receipt of wetland permits and favorable bids, includes state funding received for repair of bridge/stream crossings totaling approximately $275,000. As noted above, engineering design and permitting in the amount of $106,000, approved in Fiscal Year 2023 for additional culvert improvements will be utilized to continue to advance design of three culverts on Bennett Road conveying LaRoche Brook, Woodman Brook and Corsey Brook, on the western most segment of Bennett Road. This funding utilizes American Rescue Plan proceeds received in 2021 and 2022. Additionally, the Department is in receipt of a Congressionally Directed Funding Request (CDR) through the office of Senator Jeanne Shaheen in the amount of $2,040,000 with a 20% cost share requirement. A portion of this cost share was included in the Fiscal Year 2023 approved capital plan with the balance of the 20% requirement or $102,000 included within the 2024 capital request. Lastly, the conceptual engineering design and cost estimate for the Bennett Road culvert project has been completed which indicates an engineer's opinion of probable cost of $2,973,000 for the Woodman and Corsey crossings. A request of $423,000 for construction and $339,250 for final engineering design or a total of $762, 250 is requested. As the Laroche brook crossing replacement has been determined to be less urgent due to its condition and reduced flooding hazard, we continue to evaluate replacement options and schedule and will include any capital funding requirements in a future year's request as needed. Please note due to ongoing volatility in the construction market and unfavorable bidding climate, reallocation of non-federal funding requested above may be necessary to facilitate the Ross Road culvert contract award planned for construction in 2024. In the event this occurs, supplemental capital funding will be requested in fiscal year 2025 for Bennett Road culvert construction.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING		
	FINAL DESIGN AND ENGINEERING	$	339,250
	CONSTRUCTION ENGINEERING OVERSIGHT	$	-
	CONSTRUCTION COSTS	$	525,000
	CONTINGENCY	$	-
	TOTAL PROJECT COST	$	864,250
FINANCING	OPERATING BUDGET	$	-
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	864,250
	UNH PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	864,250
IF BONDED:	NUMBER OF YEARS		
	TOTAL PRINCIPAL		
	TOTAL INTEREST		
	TOTAL ESTIMATED COST		#VALUE!

CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2025 -2033*	**PROJECT COST**	*$85,000*
DESCRIPTION	*Drainage System Rehabilitation - Culverts, Outfalls and Drainage Structures*	**DEPARTMENT**	*Public Works - Operations*

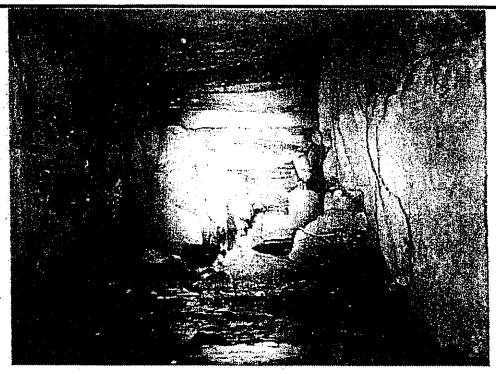
IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Department Initiative, MS-4 Permit

DESCRIPTION (TO INCLUDE JUSTIFICATION)

The Drainage System Rehabilitation Program funds repair, replacement, additions, and major repairs to the Town's stormwater drainage system consisting of approximately 70 culverts, and outfalls, 30 drainage manholes, 525 catch basins, 10 miles of drain lines and 4 bioretention areas and 5 rain gardens. This network of pipes, structures, and structural Best Management Practices (BMP's) are critical components of the Town's roadway network allowing for the compliant management of stormwater while providing crossings of streams, rivers, wetlands, and other water resources. In many cases this infrastructure is aging and has deteriorated beyond its useful life requiring replacement before failure. This annual funding request allows for continued investment in this aging infrastructure on a yearly basis or as funds are accumulated for larger stormwater projects. Projects requiring larger funding amounts which exceed this annual appropriation will be included in the capital plan separately as needed.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$	-
	FINAL DESIGN AND ENGINEERING	$	-
	CONSTRUCTION ENGINEERING OVERSIGHT	$	-
	CONSTRUCTION COSTS	$	85,000
	CONTINGENCY	$	-
	TOTAL PROJECT COST	$	85,000
FINANCING	OPERATING BUDGET	$	85,000
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	-
	UNH PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	85,000
IF BONDED:	NUMBER OF YEARS		N/A
	TOTAL PRINCIPAL	$	-
	TOTAL INTEREST	$	-
	TOTAL ESTIMATED COST	$	-



CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2024-2033*	**PROJECT COST**	*$30,000*
DESCRIPTION	*Stormwater Management Program Permit Compliance*	**DEPARTMENT**	*Public Works - Operations*

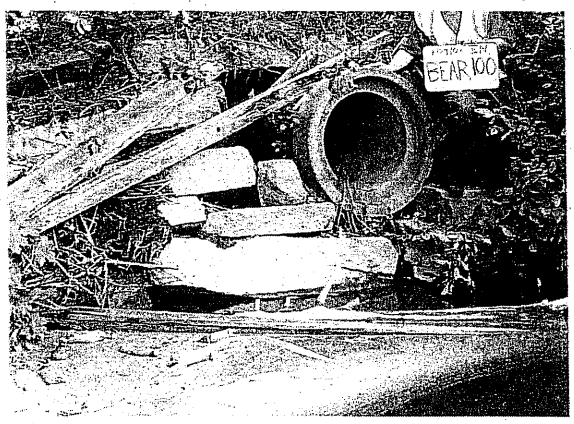
IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Department Initiative, MS-4 Permit

DESCRIPTION (TO INCLUDE JUSTIFICATION)

This program funds annual compliance with the EPA's National Pollution Discharge Elimination System Municipal Separate Storm Sewer System Phase II General Permit (NPDES MS4 Permit) . The revised final permit, recently re-issued in 2018, requires towns to meet "Minimal Control Measures" to improve water quality within jurisdictional areas. These minimum control measures include: 1. Public education and outreach 2. Public involvement and participation 3. Illicit discharge detection and elimination 4. Construction-site stormwater runoff control 5. Post-construction stormwater management in new development and redevelopment 6. Pollution prevention and good housekeeping in municipal operations. In addition, Durham Public Works continues to advance its Drainage Master Plan development utilizing 3rd party engineering services. This will include an inventory, evaluation and condition assessment of all drainage infrastructure which will allow for the development of a drainage GIS layer and prioritization of drainage system rehabilitation.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$	-
	FINAL DESIGN AND ENGINEERING	$	10,000
	CONSTRUCTION ENGINEERING OVERSIGHT	$	-
	CONSTRUCTION COSTS	$	20,000
	CONTINGENCY	$	-
	TOTAL PROJECT COST	$	30,000
FINANCING	OPERATING BUDGET	$	30,000
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	-
	UNH PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	30,000
IF BONDED:	NUMBER OF YEARS		N/A
	TOTAL PRINCIPAL	$	-
	TOTAL INTEREST	$	-
	TOTAL ESTIMATED COST	$	-



CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2024*	**PROJECT COST**	*$15,000*
DESCRIPTION	*Facility Infrastructure Asset Mangement Plan*	**DEPARTMENT**	*Public Works - Operations*

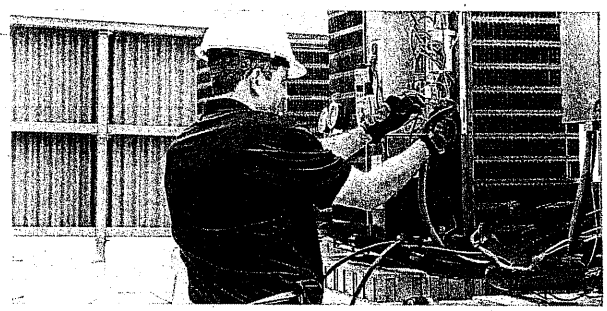
IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Department Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION)

Durham Public Works is responsible for maintenance of Town owned buildings within Durham. Many of these newer faculties including the Library, Town Hall and Police Station have advanced systems that require specialized training and licensing to service and repair. As all of our building systems continue to age, necessary investments are essential for their continued uninterrupted operation. The proposed funding will be expended to supplement our internal efforts in the first phase of developing a Facility Infrastructure Capital Improvement Plan which will address aging infrastructure within Town facilities. Under this Facility Infrastructure Plan, Durham Public Works will develop a schedule and cost for the repair or replacement of items such as interior/exterior paint, roofing, siding, HVAC systems, carpet, tiles, windows, plumbing, electrical, landscaping, pavement, et cetera. Due to the number of facilities involved and the extent of building systems, it is anticipated this effort will be phased over several years and will leverage other funding sources, with an initial focus on the most intensively used buildings including the Town Hall, Police Station and Library.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$	-
	FINAL DESIGN AND ENGINEERING	$	-
	CONSTRUCTION ENGINEERING OVERSIGHT	$	-
	CONSTRUCTION COSTS	$	15,000
	CONTINGENCY	$	-
	TOTAL PROJECT COST	$	15,000
FINANCING	OPERATING BUDGET	$	15,000
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	-
	UNH PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	15,000
IF BONDED:	NUMBER OF YEARS		N/A
	TOTAL PRINCIPAL	$	-
	TOTAL INTEREST	$	-
	TOTAL ESTIMATED COST	$	-



PROJECT YEAR	*2024*	**VEHICLE COST**	*$259,000*
DESCRIPTION	*Dump Truck 35,000 GVW*	**DEPARTMENT**	*Public Works - Operations*

DESCRIPTION (TO INCLUDE JUSTIFICATION):

Purchase of a 35,000 LB GVW (Gross Vehicle Weight) dump truck with sand/salt spreader, side wing and front plow.

Durham Public Works has a fleet of six 35,000 LB GVW dump trucks that are on a 10 year replacement cycle. These front-line pieces of equipment are operated up to eight hours daily, four to five workdays per week. Their design and carrying capacity make them well-suited for transporting construction materials, aggregates, debris, and other essential supplies to and from job sites to facilitate activities such as road repairs, infrastructure upgrades, utility installations, and landscaping projects.

Furthermore, these trucks assume a crucial role in Durham Public Works' Snow and Ice Control Program. During multifaceted winter weather events, these vehicles are mobilized as the front line defense for snow and ice control on 120 lane miles of Town roads. Equipped with snow plows and material spreaders, these vehicles efficiently clear pathways, ensuring safe and accessible roadways for residents and commuters during the challenging winter months. In cases where the demands of snow and ice removal operations surpass the capabilities of the internal fleet, Durham Public Works supplements its efforts by enlisting the support of qualified contractors.

Durham Public Works procured a "swap loader" body configuration for this equipment in FY22. This setup involves equipping the truck cab and chassis with a hydraulic hook lift hoist. This feature enables seamless interchangeability of various truck bodies, and liquid deicing and anti-icing tankers. In instances where the Durham Public Works fleet is configured for winter plowing and deicing, swift changeovers are crucial. For example, during operations like addressing a water main break requiring a dump body, the new "swap loader" setup with a hydraulic hook lift hoist allows for the quick transition between the material spreader and dump body, in under five minutes. Durham Public Works is requesting funding in FY24 to purchase a second "swap loader" configuration as part of the truck procurement to add further flexibility and dependability to the Durham Public Works fleet. The Department is proactively exploring alternative fuel options for this upcoming acquisition, including electric and compressed natural gas (CNG) solutions. Durham Public Works' spare 35,000 GVW Truck, a 2012 Peterbuilt, will be traded in as part of this acquisition. This legacy asset was a hold over from the 2022 procurement of the Department's 2022 International/Navistar Swap Loader Truck.

Vehicle to be Replaced: Truck H-2, 2013 Peterbilt

ESTIMATED COST	**PURCHASE PRICE**	$	120,000
	ACCESSORIES*	$	164,000
	LESS TRADE-IN**	$	(25,000)
	NET PURCHASE PRICE	$	259,000
	*Accessories include lighting, radios, striping, misc. equipment.		
FINANCING	**OPERATING BUDGET**	$	-
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	259,000
	UNH PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	259,000
IF BONDED:	**NUMBER OF YEARS**		5
	TOTAL PRINCIPAL	$	259,000
	TOTAL INTEREST (EST'D)	$	26,500
	TOTAL PROJECT COST	$	285,500

CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2025*	**VEHICLE COST**	*$230,000*
DESCRIPTION	*Dump Truck 35,000 GVW Replacement*	**DEPARTMENT**	*Public Works - Operations*

DESCRIPTION (TO INCLUDE JUSTIFICATION):

Purchase of a 35,000 LB GVW (Gross Vehicle Weight) dump truck with sand/salt spreader, side wing and front plow.

Durham Public Works has a fleet of six 35,000 LB GVW dump trucks that are on a 10 year replacement cycle. These front-line pieces of equipment are operated up to eight hours daily, four to five workdays per week. Their design and carrying capacity make them well-suited for transporting construction materials, aggregates, debrs, and other essential supplies to and from job sites to facilitate activities such as road repairs, infrastructure upgrades, utility installations, and landscaping projects.

Furthermore, these trucks assume a crutial role in Durham Public Works' Snow and Ice Control Program. During multifaceted winter weather events, these vehicles are mobilized as the front line defense for snow and ice control on 120 lane miles of Town roads. Equipped with snow plows and material spreaders, these vehicles efficiently clear pathways, ensuring safe and accessible roadways for residents and commuters during the challening winter months. In cases where the demands of snow and ice removal operations surpass the capabilities of the internal fleet, Durham Public Works supplements its efforts by enlisting the support of qualified contractors.

Vehicle to be Replaced: Truck H-3, 2014 International/Navistar

ESTIMATED COST	**PURCHASE PRICE**	**$**	**126,000**
	ACCESSORIES*	**$**	**114,000**
	LESS TRADE-IN**	**$**	**(10,000)**
	NET PURCHASE PRICE	**$**	**230,000**
	***Accessories include lighting, plows, radios, striping, misc. equipment.**		
FINANCING	**OPERATING BUDGET**	**$**	**-**
	UNH - CASH	**$**	**-**
	BOND - TOWN PORTION	**$**	**230,000**
	FEDERAL/STATE GRANT	**$**	**-**
	CAPITAL RESERVE ACCOUNT	**$**	**-**
	TOTAL FINANCING COSTS	**$**	**230,000**
IF BONDED:	**NUMBER OF YEARS**		**5**
	TOTAL PRINCIPAL	**$**	**230,000**
	TOTAL INTEREST (EST'D)	**$**	**23,700**
	TOTAL PROJECT COST	**$**	**253,700**

CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2026*	**VEHICLE COST**	*$241,250*
DESCRIPTION	*Dump Truck 35,000 GVW Replacement*	**DEPARTMENT**	*Public Works - Operations*

DESCRIPTION (TO INCLUDE JUSTIFICATION):

Purchase of a 35,000 LB GVW (Gross Vehicle Weight) dump truck with sand/salt spreader, side wing and front plow.

Durham Public Works has a fleet of six 35,000 LB GVW dump trucks that are on a 10 year replacement cycle. These front-line pieces of equipment are operated up to eight hours daily, four to five workdays per week. Their design and carrying capacity make them well-suited for transporting construction materials, aggregates, debrs, and other essential supplies to and from job sites to facilitate activities such as road repairs, infrastructure upgrades, utility installations, and landscaping projects.

Furthermore, these trucks assume a crutial role in Durham Public Works' Snow and Ice Control Program. During multifaceted winter weather events, these vehicles are mobilized as the front line defense for snow and ice control on 120 lane miles of Town roads. Equipped with snow plows and material spreaders, these vehicles efficiently clear pathways, ensuring safe and accessible roadways for residents and commuters during the challening winter months. In cases where the demands of snow and ice removal operations surpass the capabilities of the internal fleet, Durham Public Works supplements its efforts by enlisting the support of qualified contractors.

Vehicle to be Replaced: Truck H-4, 2015 International/Navistar

ESTIMATED COST	**PURCHASE PRICE**	**$**	**131,500**
	ACCESSORIES*	**$**	**119,750**
	LESS TRADE-IN**	**$**	**(10,000)**
	NET PURCHASE PRICE	**$**	**241,250**
	***Accessories include lighting, plows, radios, misc. equipment.**		
FINANCING	**OPERATING BUDGET**	**$**	**-**
	UNH - CASH	**$**	**-**
	BOND - TOWN PORTION	**$**	**241,250**
	FEDERAL/STATE GRANT	**$**	**-**
	CAPITAL RESERVE ACCOUNT	**$**	**-**
	TOTAL FINANCING COSTS	**$**	**241,250**
IF BONDED:	**NUMBER OF YEARS**		**5**
	TOTAL PRINCIPAL	**$**	**241,250**
	TOTAL INTEREST (EST'D)	**$**	**25,300**
	TOTAL PROJECT COST	**$**	**266,550**

CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2027*	**VEHICLE COST**	*$253,300*
DESCRIPTION	*Dump Truck 35,000 GVW Replacement*	**DEPARTMENT**	*Public Works - Operations*

DESCRIPTION (TO INCLUDE JUSTIFICATION):

Purchase of a 35,000 LB GVW (Gross Vehicle Weight) dump truck with sand/salt spreader, side wing and front plow.

Durham Public Works has a fleet of six 35,000 LB GVW dump trucks that are on a 10 year replacement cycle. These front-line pieces of equipment are operated up to eight hours daily, four to five workdays per week. Their design and carrying capacity make them well-suited for transporting construction materials, aggregates, debrs, and other essential supplies to and from job sites to facilitate activities such as road repairs, infrastructure upgrades, utility installations, and landscaping projects.

Furthermore, these trucks assume a crutial role in Durham Public Works' Snow and Ice Control Program. During multifaceted winter weather events, these vehicles are mobilized as the front line defense for snow and ice control on 120 lane miles of Town roads. Equipped with snow plows and material spreaders, these vehicles efficiently clear pathways, ensuring safe and accessible roadways for residents and commuters during the challening winter months. In cases where the demands of snow and ice removal operations surpass the capabilities of the internal fleet, Durham Public Works supplements its efforts by enlisting the support of qualified contractors.

Vehicle to be Replaced: Truck H-5, 2016 International/Navistar

ESTIMATED COST	**PURCHASE PRICE**	**$**	**137,530**
	ACCESSORIES*	**$**	**125,770**
	LESS TRADE-IN**	**$**	**(10,000)**
	NET PURCHASE PRICE	**$**	**253,300**
	***Accessories include lighting, plows, radios, misc. equipment.**		
FINANCING	**OPERATING BUDGET**	**$**	**-**
	UNH - CASH	**$**	**-**
	BOND - TOWN PORTION	**$**	**253,300**
	FEDERAL/STATE GRANT	**$**	**-**
	CAPITAL RESERVE ACCOUNT	**$**	**-**
	TOTAL FINANCING COSTS	**$**	**253,300**
IF BONDED:	**NUMBER OF YEARS**		**5**
	TOTAL PRINCIPAL	**$**	**253,300**
	TOTAL INTEREST (EST'D)	**$**	**26,900**
	TOTAL PROJECT COST	**$**	**280,200**

CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2029*	**VEHICLE COST**	*$266,000*
DESCRIPTION	*Dump Truck 35,000 GVW Replacement*	**DEPARTMENT**	*Public Works - Operations*

DESCRIPTION (TO INCLUDE JUSTIFICATION):

Purchase of a 35,000 LB GVW (Gross Vehicle Weight) dump truck with sand/salt spreader, side wing and front plow.

Durham Public Works has a fleet of six 35,000 LB GVW dump trucks that are on a 10 year replacement cycle. These front-line pieces of equipment are operated up to eight hours daily, four to five workdays per week. Their design and carrying capacity make them well-suited for transporting construction materials, aggregates, debrs, and other essential supplies to and from job sites to facilitate activities such as road repairs, infrastructure upgrades, utility installations, and landscaping projects.

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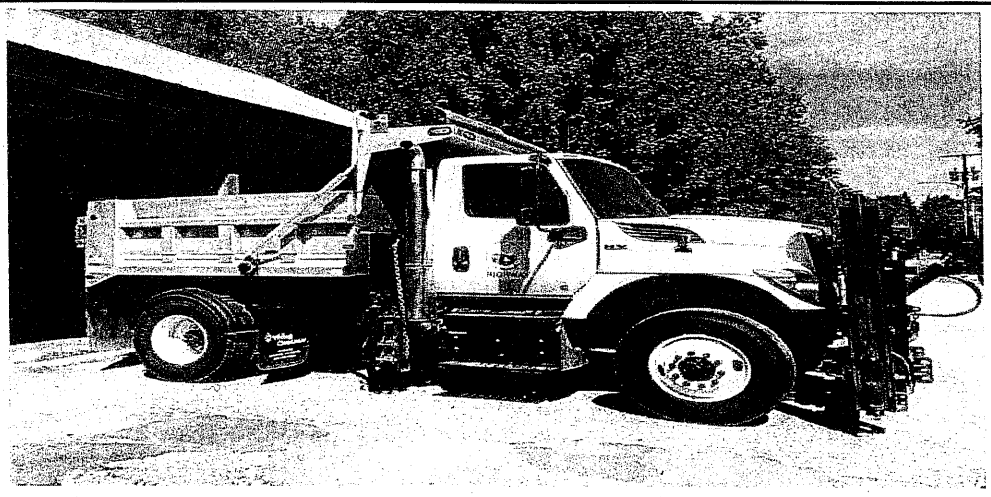
Vehicle to be Replaced: Truck H-6, 2019 International/Navistar

ESTIMATED COST	**PURCHASE PRICE**	**$**	**143,900**
	ACCESSORIES*	**$**	**132,100**
	LESS TRADE-IN**	**$**	**(10,000)**
	NET PURCHASE PRICE	**$**	**266,000**
	***Accessories include lighting, plows, radios, misc. equipment.**		
FINANCING	**OPERATING BUDGET**	**$**	**-**
	UNH - CASH	**$**	**-**
	BOND - TOWN PORTION	**$**	**266,000**
	FEDERAL/STATE GRANT	**$**	**-**
	CAPITAL RESERVE ACCOUNT	**$**	**-**
	TOTAL FINANCING COSTS	**$**	**266,000**
IF BONDED:	**NUMBER OF YEARS**		**5**
	TOTAL PRINCIPAL	**$**	**266,000**
	TOTAL INTEREST (EST'D)	**$**	**28,100**
	TOTAL PROJECT COST	**$**	**294,100**



CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2032*	**VEHICLE COST**	*$279,300*
DESCRIPTION	*Dump Truck 35,000 GVW Replacement*	**DEPARTMENT**	*Public Works - Operations*

DESCRIPTION (TO INCLUDE JUSTIFICATION):

Purchase of a 35,000 LB GVW (Gross Vehicle Weight) dump truck with sand/salt spreader, side wing and front plow.

Durham Public Works has a fleet of six 35,000 LB GVW dump trucks that are on a 10 year replacement cycle. These front-line pieces of equipment are operated up to eight hours daily, four to five workdays per week. Their design and carrying capacity make them well-suited for transporting construction materials, aggregates, debrs, and other essential supplies to and from job sites to facilitate activities such as road repairs, infrastructure upgrades, utility installations, and landscaping projects.

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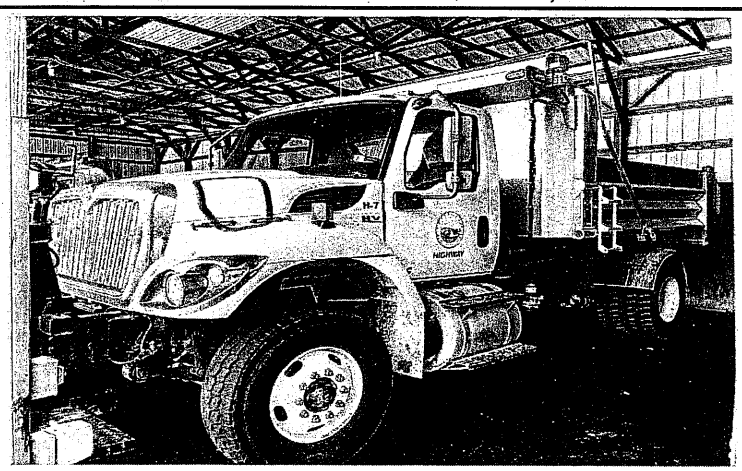
Vehicle to be Replaced: Truck H-7, 2019 International/Navistar

ESTIMATED COST	**PURCHASE PRICE**	**$**	**150,500**
	ACCESSORIES*	**$**	**138,800**
	LESS TRADE-IN**	**$**	**(10,000)**
	NET PURCHASE PRICE	**$**	**279,300**
	***Accessories include lighting, plows, radios, misc. equipment.**		
FINANCING	**OPERATING BUDGET**	**$**	**-**
	UNH - CASH	**$**	**-**
	BOND - TOWN PORTION	**$**	**279,300**
	FEDERAL/STATE GRANT	**$**	**-**
	CAPITAL RESERVE ACCOUNT	**$**	**-**
	TOTAL FINANCING COSTS	**$**	**279,300**
IF BONDED:	**NUMBER OF YEARS**		**5**
	TOTAL PRINCIPAL	**$**	**279,300**
	TOTAL INTEREST (EST'D)	**$**	**31,200**
	TOTAL PROJECT COST	**$**	**310,500**



PROJECT YEAR	*2024*	**PROJECT COST**	*$2,286,000*
DESCRIPTION	*Madbury Road Roadway, Sidewalk, Drainage Streetscape Complete Streets Project - Construction*	**DEPARTMENT**	*Public Works - Operations*

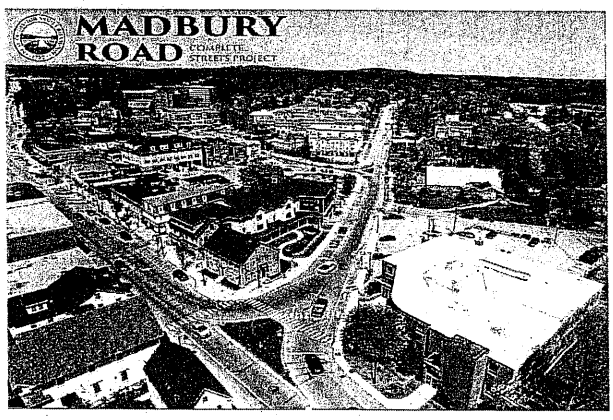
IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Department Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION)

Madbury Road is approximately 6,500 feet in length and serves as a major arterial roadway in Durham with Average Daily Traffic exceeding 4,500 vehicles. The roadway was transferred to Town ownership from the State of New Hampshire when Route 4 was upgraded many years ago. The roadway was last paved in 2009 at which time it received an overlay treatment. Currently the roadway is in poor condition with significant pavement raveling, delamination, longitudinal and alligator cracking, rutting, settlement, and base failure. The sidewalks and curb ramps are ADA non-compliant and curb reveal is minimal or non-existent in some areas. The drainage system is undersized with drainage structures and drainage pipeline in a deteriorated condition. On September 13th, 2021, the Town Council approved a contract award in the amount of $1,142,898.00 to VHB Engineering to provide design engineering services for the reconstruction of Madbury Road. The Madbury Road design project team has taken a "Complete Streets" approach, which includes evaluating and constructing multi-modal transportation improvements where possible, including traffic calming and pedestrian and bicycle accommodations. The design will also include a sustainable environmental approach to construction of public infrastructure, incorporating low impact development stormwater features, and environmentally conscious construction techniques and materials. A robust public involvement component has been developed to ensure all stakeholder's perspectives are considered within the design and incorporated where possible. The project team has developed a GIS "Story Map" using interactive maps to solicit feedback and hosted public information meetings on June 15th and October 6th, 2022 and is planning an additional meeting in the September/October timeframe to share updated design concepts with project stakeholders. Project components include culvert rehabilitation and replacement, stormwater and drainage system reconstruction, water distribution system and sewer collection system rehabilitation and replacement and roadway, sidewalk, streetscape reconstruction. The project has been divided into 3 separate segments, drainage/streetscape, water, and sewer. The project construction timeline includes four separate phases annually through 2026. The first phase which includes the reconstruction of the Littlehale Creek over Edgewood Road culvert and a rehabilitation of the Littlehale Creek over Madbury Road culvert will be awarded in September 2023 with construction anticipated to begin in Spring 2024. The Public Works Department continues to aggressively pursue grant and principal forgiveness opportunism and has been successful in receiving $800,000 in American Rescue Plan Act (ARPA) Funding and principal forgiveness thus far through the State Revolving Loan Fund Program. The proposed funding requests annually through Fiscal Year 2026 will provide the necessary funding to design and construct the Madbury Road Complete Streets Project.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$ -
	FINAL DESIGN AND ENGINEERING	$ -
	CONSTRUCTION ENGINEERING OVERSIGHT	$ -
	CONSTRUCTION COSTS	$ 2,286,000
	CONTINGENCY	$ -
	TOTAL PROJECT COST	$ 2,286,000
FINANCING	OPERATING BUDGET	$ -
	UNH - CASH	$ -
	BOND - TOWN PORTION	$ 2,286,000
	UNH PORTION	$ -
	FEDERAL/STATE GRANT	$ -
	CAPITAL RESERVE ACCOUNT	$ -
	TOTAL FINANCING COSTS	$ 2,286,000
IF BONDED:	NUMBER OF YEARS	20
	TOTAL PRINCIPAL	$ 2,286,000
	TOTAL INTEREST	$ 1,013,000
	TOTAL ESTIMATED COST	$ 3,299,000



PROJECT YEAR	*2025*	**PROJECT COST**	*$2,298,000*
DESCRIPTION	*Madbury Road Roadway, Sidewalk, Drainage Streetscape Complete Streets Project - Construction*	**DEPARTMENT**	*Public Works - Operations*

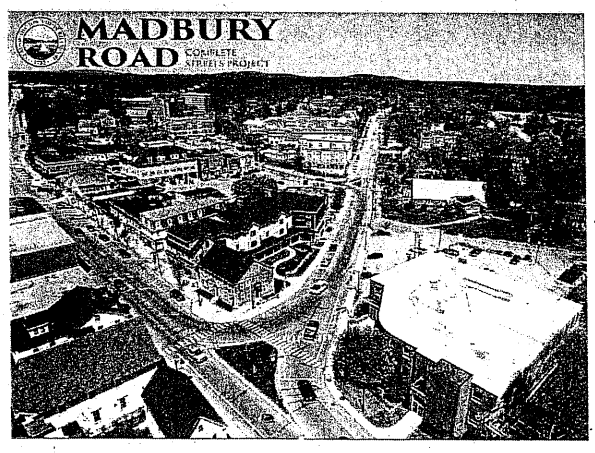
IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Department Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION)

Madbury Road is approximately 6,500 feet in length and serves as a major arterial roadway in Durham with Average Daily Traffic exceeding 4,500 vehicles. The roadway was transferred to Town ownership from the State of New Hampshire when Route 4 was upgraded many years ago. The roadway was last paved in 2009 at which time it received an overlay treatment. Currently the roadway is in poor condition with significant pavement raveling, delamination, longitudinal and alligator cracking, rutting, settlement, and base failure. The sidewalks and curb ramps are ADA non-compliant and curb reveal is minimal or non-existent in some areas. The drainage system is undersized with drainage structures and drainage pipeline in a deteriorated condition. On September 13th, 2021, the Town Council approved a contract award in the amount of $1,142,898.00 to VHB Engineering to provide design engineering services for the reconstruction of Madbury Road. The Madbury Road design project team has taken a "Complete Streets" approach, which includes evaluating and constructing multi-modal transportation improvements where possible, including traffic calming and pedestrian and bicycle accommodations. The design will also include a sustainable environmental approach to construction of public infrastructure, incorporating low impact development stormwater features, and environmentally conscious construction techniques and materials. A robust public involvement component has been developed to ensure all stakeholder's perspectives are considered within the design and incorporated where possible. The project team has developed a GIS "Story Map" using interactive maps to solicit feedback and hosted public information meetings on June 15th and October 6th, 2022 and is planning an additional meeting in the September/October timeframe to share updated design concepts with project stakeholders. Project components include culvert rehabilitation and replacement, stormwater and drainage system reconstruction, water distribution system and sewer collection system rehabilitation and replacement and roadway, sidewalk, streetscape reconstruction. The project has been divided into 3 separate segments, drainage/streetscape, water, and sewer. The project construction timeline includes four separate phases annually through 2026. The first phase which includes the reconstruction of the Littlehale Creek over Edgewood Road culvert and a rehabilitation of the Littlehale Creek over Madbury Road culvert will be awarded in September 2023 with construction anticipated to begin in Spring 2024. The Public Work Department continues to aggressively pursue grant and principal forgiveness opportunism and has been successful in receiving $800,000 in American Rescue Plan Act (ARPA) Funding and principal forgiveness thus far through the State Revolving Loan Fund Program. The proposed funding requests annually through Fiscal Year 2026 will provide the necessary funding to design and construct the Madbury Road Complete Streets Project.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$	-
	FINAL DESIGN AND ENGINEERING	$	-
	CONSTRUCTION ENGINEERING OVERSIGHT	$	-
	CONSTRUCTION COSTS	$	2,298,000
	CONTINGENCY	$	-
	TOTAL PROJECT COST	$	2,298,000
FINANCING	OPERATING BUDGET	$	-
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	2,298,000
	UNH PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	2,298,000
IF BONDED:	NUMBER OF YEARS		20
	TOTAL PRINCIPAL	$	2,298,000
	TOTAL INTEREST	$	940,000
	TOTAL ESTIMATED COST	$	3,238,000



PROJECT YEAR	*2026*	**PROJECT COST**	*$2,257,000*
DESCRIPTION	*Madbury Road Roadway, Sidewalk, Drainage Streetscape Complete Streets Project - Construction*	**DEPARTMENT**	*Public Works - Operations*

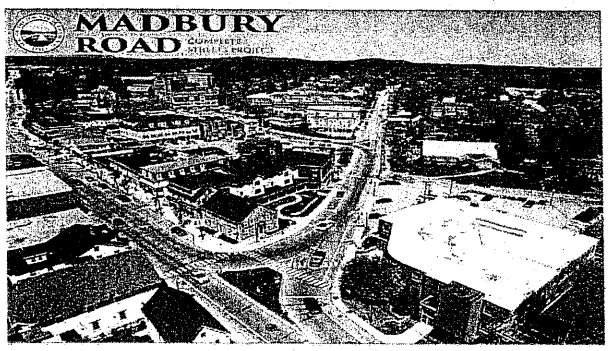
IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Department Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION)

Madbury Road is approximately 6,500 feet in length and serves as a major arterial roadway in Durham with Average Daily Traffic exceeding 4,500 vehicles. The roadway was transferred to Town ownership from the State of New Hampshire when Route 4 was upgraded many years ago. The roadway was last paved in 2009 at which time it received an overlay treatment. Currently the roadway is in poor condition with significant pavement raveling, delamination, longitudinal and alligator cracking, rutting, settlement, and base failure. The sidewalks and curb ramps are ADA non-compliant and curb reveal is minimal or non-existent in some areas. The drainage system is undersized with drainage structures and drainage pipeline in a deteriorated condition. On September 13th, 2021, the Town Council approved a contract award in the amount of $1,142,898.00 to VHB Engineering to provide design engineering services for the reconstruction of Madbury Road. The Madbury Road design project team has taken a "Complete Streets" approach, which includes evaluating and constructing multi-modal transportation improvements where possible, including traffic calming and pedestrian and bicycle accommodations. The design will also include a sustainable environmental approach to construction of public infrastructure, incorporating low impact development stormwater features, and environmentally conscious construction techniques and materials. A robust public involvement component has been developed to ensure all stakeholder's perspectives are considered within the design and incorporated where possible. The project team has developed a GIS "Story Map" using interactive maps to solicit feedback and hosted public information meetings on June 15th and October 6th, 2022 and is planning an additional meeting in the September/October timeframe to share updated design concepts with project stakeholders. Project components include culvert rehabilitation and replacement, stormwater and drainage system reconstruction, water distribution system and sewer collection system rehabilitation and replacement and roadway, sidewalk, streetscape reconstruction. The project has been divided into 3 separate segments, drainage/streetscape, water, and sewer. The project construction timeline includes four separate phases annually through 2026. The first phase which includes the reconstruction of the Littlehale Creek over Edgewood Road culvert and a rehabilitation of the Littlehale Creek over Madbury Road culvert will be awarded in September 2023 with construction anticipated to begin in Spring 2024. The Public Work Department continues to aggressively pursue grant and principal forgiveness opportunities and has been successful in receiving $800,000 in American Rescue Plan Act (ARPA) Funding and principal forgiveness thus far through the State Revolving Loan Fund Program. The proposed funding requests annually through Fiscal Year 2026 will provide the necessary funding to design and construct the Madbury Road Complete Streets Project.

ESTIMATED COSTS:	**PRELIMINARY STUDY, DESIGN AND ENGINEERING**	**$ -**
	FINAL DESIGN AND ENGINEERING	**$ -**
	CONSTRUCTION ENGINEERING OVERSIGHT	**$ -**
	CONSTRUCTION COSTS	**$ 2,257,000**
	CONTINGENCY	**$ -**
	TOTAL PROJECT COST	**$ 2,257,000**
FINANCING	**OPERATING BUDGET**	**$ -**
	UNH - CASH	**$ -**
	BOND - TOWN PORTION	**$ 2,257,000**
	UNH PORTION	**$ -**
	FEDERAL/STATE GRANT	**$ -**
	CAPITAL RESERVE ACCOUNT	**$ -**
	TOTAL FINANCING COSTS	**$ 2,257,000**
IF BONDED:	**NUMBER OF YEARS**	**20**
	TOTAL PRINCIPAL	**$ 2,257,000**
	TOTAL INTEREST	**$ 1,025,000**
	TOTAL ESTIMATED COST	**$ 3,282,000**



CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2024*	**PROJECT COST**	*$50,000*
DESCRIPTION	*Downtown Sidewalk Decorative Light Pole Painting*	**DEPARTMENT**	*Public Works - Buildings and Grounds*

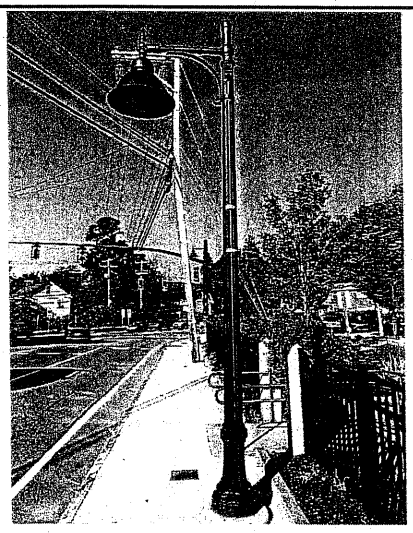
IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Department Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION):

Durham Public Works is responsible for the comprehensive maintenance of 123 decorative lights in the downtown corridor. These poles require periodic painting to ensure their aesthetic appeal and structural integrity. Prolonged exposure to environmental factors such as sunlight, rain, and deicing materials cause the paint on the poles to degrade overtime. Painting serves as a protective measure to prevent corrosion and rust that could compromise the poles' structural integrity. Additionally, regular painting enhances the overall visual quality of the downtown corridor. Durham Public Works is requesting $50,000 for the completion of this project which will occur in phases over several years to minimize traffic and parking impacts.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$ -
	FINAL DESIGN AND ENGINEERING	$ -
	CONSTRUCTION ENGINEERING OVERSIGHT	$ -
	CONSTRUCTION COSTS	$ 50,000
	CONTINGENCY	$ -
	TOTAL PROJECT COST	$ 50,000
FINANCING	OPERATING BUDGET	$ 50,000
	UNH - CASH	$ -
	BOND - TOWN PORTION	$ -
	UNH PORTION	$ -
	FEDERAL/STATE GRANT	$ -
	CAPITAL RESERVE ACCOUNT	$ -
	TOTAL FINANCING COSTS	$ 50,000
IF BONDED	NUMBER OF YEARS	5
	TOTAL PRINCIPAL	$ 50,000
	TOTAL INTEREST	$ 5,425
	TOTAL ESTIMATED COST	$ 55,425



CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2024*	**PROJECT COST**	*$72,000*
DESCRIPTION	*Pedestrian Safety Improvements*	**DEPARTMENT**	*Public Works - Operations*

DESCRIPTION (TO INCLUDE JUSTIFICATION):

The Town of Durham is working collaboratively with the University of New Hampshire to conduct a Pedestrian Crossing Safety Review on several crosswalks throughout Town and on campus. In June 2023, the team contracted with Engineering firm Tighe and Bond and a Professional Traffic Operations Engineer (PTOE) to undertake a review of the crosswalks to identify immediate "near term" enhancements (i.e. signage, pavement markings, lighting adjustments, sightline improvements) which 1) comply with the Manual on Uniform Traffic Control Devices (MUTCD), 2) are contextually appropriate and 3) are appropriate based on the mix of users (pedestrians, cyclists and motorists). The review will also include development of a 1-3 year improvement plan for the identified study area roadways and crosswalks which will require larger capital investments including potentially, Rectangular Rapid Flashing Beacons (RRFB), roadway geometric changes and crosswalk relocation. The Town has previously identified locations, including Newmarket Road (Route 108) where a RRFB is desirable following further consultation and discussion with relevant boards and committees, including HDC/Heritage Commission. This capital request includes the procurement and installation of 4 sets of solar powered RRFB's with required signage/retrofits.

ESTIMATED COST	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$ -
	FINAL DESIGN AND ENGINEERING	$ -
	CONSTRUCTION ENGINEERING OVERSIGHT	$ -
	CONSTRUCTION COSTS	$ 72,000
	CONTINGENCY	$ -
	TOTAL PROJECT COST	$ 72,000
FINANCING	OPERATING BUDGET	$ 72,000
	UNH - CASH	$ -
	BOND - TOWN PORTION	$ -
	UNH PORTION	$ -
	FEDERAL/STATE GRANT	$ -
	CAPITAL RESERVE ACCOUNT	$ -
	TOTAL FINANCING COSTS	$ 72,000
IF BONDED	NUMBER OF YEARS	N/A
	TOTAL PRINCIPAL	$ -
	TOTAL INTEREST	$ -
	TOTAL ESTIMATED COST	$ -

CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2024*	**EQUIPMENT COST**	*$45,000*
DESCRIPTION	*Deicing Material Reduction Program*	**DEPARTMENT**	*Public Works - Operations*

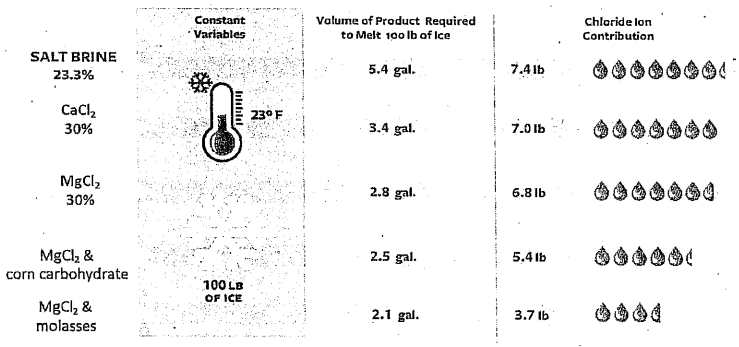
DESCRIPTION (TO INCLUDE JUSTIFICATION):

In the Department's continued efforts to increase cost efficiency and employ sustainable practices in our snow fighting program, Durham Public Works has adopted the use of treated salt and Organic Based Performance Enhanced liquids (OBPE) in its winter maintenance operations. This Type 2 treated salt is rock salt which has been fully encapsulated with OBPE liquids. Organic Based Performance Enhanced liquids are created to strict specifications and are comprised of a refined carbohydrate source, such as molasses, blended with premium magnesium chloride. These premium liquids are designed for instant melting results, reduced corrosion impact, working at lower temperatures, ensuring the material applied remains on the roadway and has lasting residual effectiveness. This material is specifically designed for anti-icing, direct application de-icing, frost prevention and prewetting of solids.

The addition of the first swap loader interchangeable truck system into the Durham Public Works fleet in FY 2023 provides significant flexibility. It enables the Department to utilize the existing and proposed 2024 swap loader trucks for the application of these enhanced magnesium chloride liquids during winter events, without the need for a separate and dedicated cab and chassis. This capital request of $45,000 includes the purchase of a 925-gallon skidded tank and roadway liquid application system. This skidded tank, spray bar and controller system along with two, 3,000-gallon storage tanks would enable Durham Public Works to store and apply these OBPE liquids prior to and during winter storm events, furthering our efforts to decrease sodium chloride usage while providing safe conditions for the traveling public.

ESTIMATED COST	**PURCHASE PRICE**	**$**	**45,000**
	ACCESSORIES*	**$**	**-**
	LESS TRADE-IN**	**$**	**-**
	NET PURCHASE PRICE	**$**	**45,000**
	***Accessories include lighting, radios, striping, misc. equipment.**		
FINANCING	**OPERATING BUDGET**	**$**	**-**
	UNH - CASH	**$**	**-**
	BOND - TOWN PORTION	**$**	**45,000**
	FEDERAL/STATE GRANT	**$**	**-**
	CAPITAL RESERVE ACCOUNT	**$**	**-**
	TOTAL FINANCING COSTS	**$**	**45,000**
IF BONDED	**NUMBER OF YEARS**		**5**
	TOTAL PRINCIPAL	**$**	**45,000**
	TOTAL INTEREST (EST'D)	**$**	**3,300**
	TOTAL PROJECT COST	**$**	**48,300**

Lbs of chloride ion contributed when melting 100 lb of ice, at 23° F



CAPITAL IMPROVEMENT PROGRAM

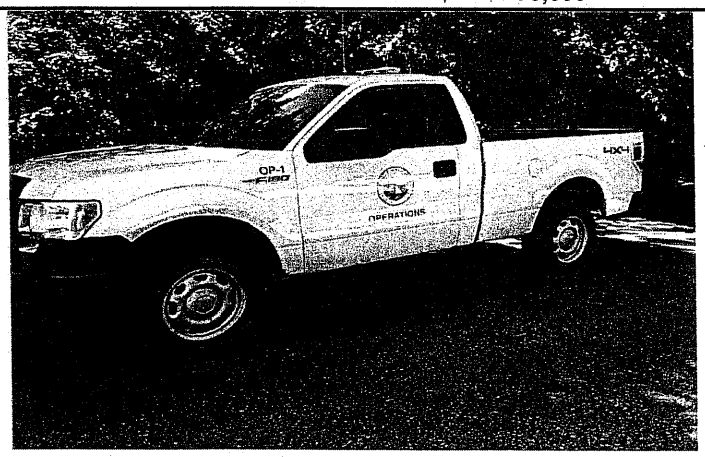
PROJECT YEAR	*2024*	**VEHICLE COST**	*$71,000*
DESCRIPTION	*3/4 Ton Pick-Up Replacement*	**DEPARTMENT**	*Public Works - Operations*

DESCRIPTION (TO INCLUDE JUSTIFICATION):

The 2013 Ford F-150 Pick-Up Truck is scheduled for replacement in 2024. This vehicle is the Assistant Public Works Director's daily means of transportation. This employee is responsible for the planning and supervision of routine and emergency operations in the Highway, Buildings & Grounds, Traffic Control, Solid Waste, and Water Divisions. The existing 2013 Ford F-150 1/2 Ton Pick-up averages 10,000 miles per year and is beginning to experience more frequent mechanical and electrical repairs due to its age. Durham Public Works is proposing to purchase a 3/4 Ton, Four-Wheel Drive Pick-Up Truck to accommodate a plow package. This upgrade will allow the Department to utilize the vehicle more effectively during snow and ice control operations. Durham Public Works is proactively exploring alternative fuel options for this upcoming acquisition, including electric and compressed natural gas (CNG) solutions. This vehicle is on a 10-12 year replacement plan.

Vehicle to be Replaced: 2013 Ford F-150

ESTIMATED COST	**PURCHASE PRICE**	**$**	**63,000**
	ACCESSORIES*	**$**	**9,000**
	LESS TRADE-IN**	**$**	**1,000**
	NET PURCHASE PRICE	**$**	**71,000**
	***Accessories include lighting, radios, striping, misc. equipment.**		
FINANCING	**OPERATING BUDGET**	**$**	**-**
	UNH - CASH	**$**	**-**
	BOND - TOWN PORTION	**$**	**71,000**
	FEDERAL/STATE GRANT	**$**	**-**
	CAPITAL RESERVE ACCOUNT	**$**	**-**
	TOTAL FINANCING COSTS	**$**	**71,000**
IF BONDED:	**NUMBER OF YEARS**	**$**	**5**
	TOTAL PRINCIPAL	**$**	**71,000**
	TOTAL INTEREST (EST'D)	**$**	**7,350**
	TOTAL PROJECT COST	**$**	**78,350**



CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2024*	**PROJECT COST**	$ 1,994,550
DESCRIPTION	*Wagon Hill Farm Living Shoreline Coastal Restoration - Phase 2*	**DEPARTMENT**	*Public Works - Operations*

IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Department Initiative Coastal Restoration

DESCRIPTION (TO INCLUDE JUSTIFICATION)

The goal of this project is to advance the Living Shoreline (LS) pipeline in New Hampshire by extending the living shoreline created in 2019 at Wagon Hill Farm During the 2020 grant round the National Fish and Wildlife Foundation (NFWF) provided funding to Durham to undertake the project 'Scaling Up Living Shoreline Stabilization for Community Protection and Tidal Wetland Habitat in the Great Bay Estuary (NH)" (EasyGrant ID: 69073). The project team developed designs to extend the existing living shoreline along an additional 1,800 feet of eroding shoreline at Wagon Hill Farm. Now, by implementing the additional living shoreline construction with these additonal proposed NFWF and Coastal Zone Management grants, the project will stabilize severe erosion and increase adaptive capacity of important habitat and recreation space as sea levels rise. In addition, it will protect a valuable public community space and continue to serve as an accessible example and teaching site for nature-based solutions in coastal New Hampshire.
Wagon Hill Farm is a 139-acre public recreation and conservation property that includes 2,100 lineal feet of eroding tidal shoreline, owned and managed by Durham, New Hampshire.

ESTIMATED COSTS:	**PRELIMINARY STUDY, DESIGN AND ENGINEERING**	**$ -**
	FINAL DESIGN AND ENGINEERING	
	CONSTRUCTION ENGINEERING OVERSIGHT	**$ 458,850**
	CONSTRUCTION COSTS	**$ 1,535,700**
	CONTINGENCY	**$ -**
	TOTAL PROJECT COST	**$ 1,994,550**
FINANCING	**OPERATING BUDGET**	
	UNH - CASH	**$ -**
	BOND - TOWN PORTION	**$ -**
	UNH PORTION	**$ -**
	FEDERAL/STATE GRANT	**$ 1,994,550**
	CAPITAL RESERVE ACCOUNT	**$ -**
	TOTAL FINANCING COSTS	**$ 1,994,550**
IF BONDED:	**NUMBER OF YEARS**	**N/A**
	TOTAL PRINCIPAL	**$ -**
	TOTAL INTEREST	**$ -**
	TOTAL ESTIMATED COST	**$ -**

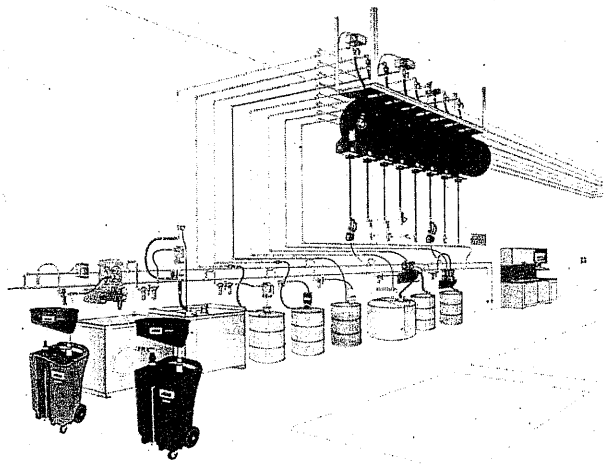
CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2025*	**PROJECT COST**	*$15,000*
DESCRIPTION	*Motor Vehicle Lubrication Distribution System Replacement*	**DEPARTMENT**	*Public Works - Operations*

DESCRIPTION (TO INCLUDE JUSTIFICATION):

The Motor Vehicle Lubrication Distribution System at Durham Public Works requires replacement. Originally installed in 1996, the Lubrication Distribution System utilizes a bank of hoses, pumps, and compressed air to simultaneously distribute different types of motor vehicle fluids from storage tanks to a centralized location in the Durham Public Works maintenance garage. This system allows technicians to quickly and conveniently access the right lubricant for each specific application without having to change hoses or containers frequently. A lubrication system with multiple fluid hoses allows for the right fluid to be delivered for each maintenance task, optimizing performance, and extending the equipment's lifespan. Furthermore, as industry requirements or equipment specifications change, a lubrication system with multiple fluid hoses can adapt to accommodate new lubricants or fluids, providing flexibility in the maintenance process. The current system is near the end of its useful life with several of the hoses, hose reels, and pumps requiring replacement in the short term.

ESTIMATED COST	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$ -
	FINAL DESIGN AND ENGINEERING	$ -
	CONSTRUCTION ENGINEERING OVERSIGHT	$ -
	CONSTRUCTION COSTS	$ 15,000
	CONTINGENCY	$ -
	TOTAL PROJECT COST	$ 15,000
FINANCING	OPERATING BUDGET	$ 15,000
	UNH - CASH	$ -
	BOND - TOWN PORTION	$ -
	UNH PORTION	$ -
	FEDERAL/STATE GRANT	$ -
	CAPITAL RESERVE ACCOUNT	$ -
	TOTAL FINANCING COSTS	$ 15,000
IF BONDED	NUMBER OF YEARS	N/A
	TOTAL PRINCIPAL	$ -
	TOTAL INTEREST	$ -
	TOTAL ESTIMATED COST	$ -



CAPITAL IMPROVEMENT PROGRAM

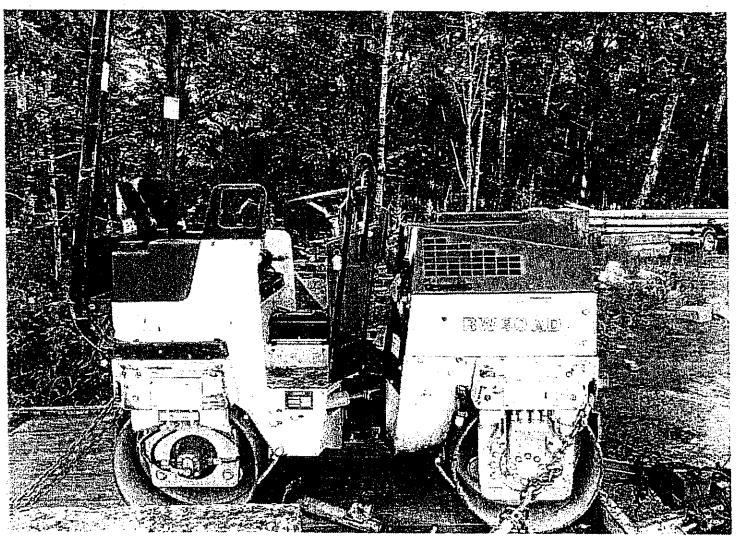
PROJECT YEAR	*2025*	**EQUIPMENT COST**	*$25,000*
DESCRIPTION	*Vibratory Roller Replacement*	**DEPARTMENT**	*Public Works - Operations*

DESCRIPTION (TO INCLUDE JUSTIFICATION):

The 1998 Bomag BW 90 AD Vibratory Roller is scheduled for replacement in 2025 when it will be 27 years old. This piece of heavy equipment is utilized specifically for construction and road maintenance projects. Vibratory rollers are used for achieving optimal compaction and surface smoothness of various materials, such as soil, asphalt, and concrete. The significance of these pieces of equipment is found in their ability to efficiently and uniformly compact materials to provide a stable foundation for road and construction projects, increasing load-bearing capacity and resistance to settlement and deformation. Due to the age and mechanical condition of the 1998 Bomag BW 90 AD, it's reliability and repair history have become a concern for this front line piece of equipment. Significant investments in several critical mechanical components are required in both the short and long-term. The 1998 Bomag BW 90 AD will be traded in as part of the procurement process.

Equipment to be Replaced: 1998 Bomag BW 90 AD

ESTIMATED COST	PURCHASE PRICE	$	26,000
	ACCESSORIES*	$	-
	LESS TRADE-IN**	$	1,000
	NET PURCHASE PRICE	$	25,000
	*Accessories include lighting, radios, striping, misc. equipment.		
FINANCING	OPERATING BUDGET	$	25,000
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	25,000
IF BONDED	NUMBER OF YEARS		N/A
	TOTAL PRINCIPAL	$	-
	TOTAL INTEREST (EST'D)	$	-
	TOTAL PROJECT COST	$	-



CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2025*	**EQUIPMENT COST**	*$35,000*
DESCRIPTION	*Mobile Air Compressor Replacement*	**DEPARTMENT**	*Public Works - Operations*

DESCRIPTION (TO INCLUDE JUSTIFICATION):

Durham Public Works is proposing to replace the Department's 2006 Mobile Air Compressor in 2025. This vital piece of equipment delivers compressed air to an array of pneumatic hand tools and machinery at remote sites. Notably, it supplies the pneumatic power requirements to operate pavement and concrete saws, jack hammers, small plate compactors, and impact wrenches, among other tools. The versatility and portability of this equipment make it critical asset, enabling the completion of various construction, repair, and maintenance tasks across different locations. This piece of equipment is on a 15 year replacement program.

Equipment to be replaced: 2006 Sullivan/Palatek D210

ESTIMATED COST	PURCHASE PRICE	$	35,000
	ACCESSORIES*	$	-
	LESS TRADE-IN**	$	-
	NET PURCHASE PRICE	$	35,000
	*Accessories include lighting, radios, striping, misc. equipment.		
FINANCING	OPERATING BUDGET	$	35,000
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	35,000
IF BONDED:	NUMBER OF YEARS		N/A
	TOTAL PRINCIPAL	$	-
	TOTAL INTEREST (EST'D)	$	-
	TOTAL PROJECT COST	$	-

CAPITAL IMPROVEMENT PROGRAM

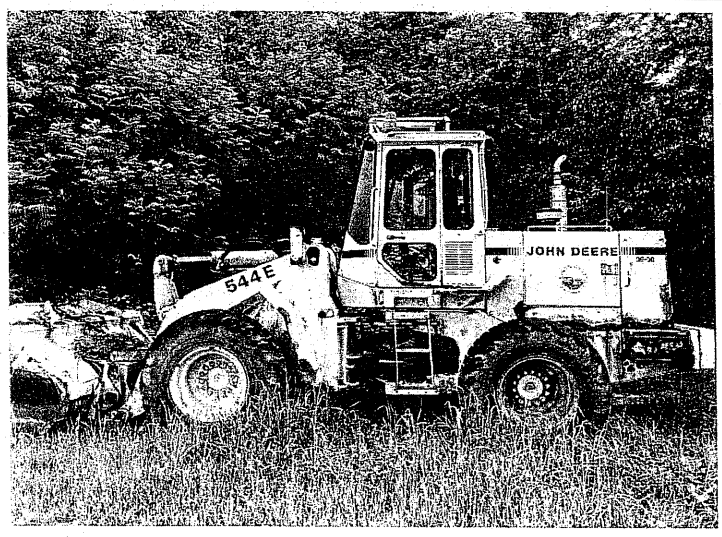
PROJECT YEAR	*2026*	**EQUIPMENT COST**	*$295,000*
DESCRIPTION	*Front End Loader Replacement*	**DEPARTMENT**	*Public Works - Operations*

DESCRIPTION (TO INCLUDE JUSTIFICATION):

The 2004 Volvo L60 Front End Loader is scheduled for replacement in 2024 but due to its condition, replacement will likely be deferred until 2025 or 2026 when it will be 21- 22 years old. This highly versatile front line piece of equipment is used for loading, digging, grading, leveling, lifting, and transporting various materials such as dirt, gravel, sand, debris, snow, and construction materials. This versatility allows Durham Public Works to efficiently tackle different types of projects without the need for multiple specialized machines. Specifically, during multifaceted severe weather and other emergency events, the capabilities of the Front End Loader make it an invaluable piece of equipment. Durham Public Works is proactively exploring alternative fuel options for this upcoming acquisition, including electric and compressed natural gas (CNG) solutions. Durham Public Works' spare Front End Loader, a 1990 John Deere 544E will be traded in as part of this acquisition. This legacy asset was a hold over from the 2017 procurement of the Department's Volvo L70.

Equipment to be Replaced: 1990 John Deere 544E

ESTIMATED COST	**PURCHASE PRICE**	**$**	**300,000**
	ACCESSORIES*	**$**	**-**
	LESS TRADE-IN**	**$**	**5,000**
	NET PURCHASE PRICE	**$**	**295,000**
	***Accessories include lighting, radios, striping, misc. equipment.**		
FINANCING	**OPERATING BUDGET**	**$**	**-**
	UNH - CASH	**$**	**-**
	BOND - TOWN PORTION	**$**	**295,000**
	FEDERAL/STATE GRANT	**$**	**-**
	CAPITAL RESERVE ACCOUNT	**$**	**-**
	TOTAL FINANCING COSTS	**$**	**295,000**
IF BONDED	**NUMBER OF YEARS**		**5**
	TOTAL PRINCIPAL	**$**	**295,000**
	TOTAL INTEREST (EST'D)	**$**	**30,500**
	TOTAL PROJECT COST	**$**	**325,500**



CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2026*	**PROJECT COST**	*$1,300,000*
DESCRIPTION	*Longmarsh Road Bridge*	**DEPARTMENT**	*Public Works - Operations*

IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Dept Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION)

This project includes the replacement of the existing culverts at the Longmarsh Road crossing of Longmarsh Brook with a 59 foot clear span bridge. The Longmarsh Road crossing over Longmarsh Brook is a causeway like structure consisting of two 60-inch diameter corrugated metal pipes (CMP) with dry- laid stone headwalls. The existing structure was constructed in the 1980's and has been reconstructed after being washed out during storm events in 2006, 2007, and 2010. The combination of a low roadway profile elevation over Longmarsh Brook and the inadequate hydraulic capacity of the existing culverts results in overtopping of the roadway during extreme storm events. The proposed improvements involve both replacement of the existing structure for one with a greater hydraulic capacity and increasing the roadway profile elevation at the low point of the crossing. The Town previously had a FEMA Hazard Mitigation grant but due to the costs of the construction, the project was not able to demonstrate cost effectiveness under FEMA's benefit-to-cost analysis criteria.
Other sources of funding including State Bridge Aid will be explored. In addition the Department is also moving forward with design of the Bennett Road culverts and roadway improvements to raise the roadway profiles above the 100 year flood elevation. This will provide a benefit for those residents unable to access their property during extreme storm events . **In FY22, the Town was awarded non-financial technical assistance through the Seacoast Flood Smart Program in order to help NH coastal communities in accessing FEMA Hazard Mitigation Assistance (HMA) Grants.**

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$	-
	FINAL DESIGN AND ENGINEERING	$	-
	CONSTRUCTION ENGINEERING OVERSIGHT	$	150,000
	CONSTRUCTION COSTS	$	1,150,000
	CONTINGENCY	$	-
	TOTAL PROJECT COST	$	1,300,000
FINANCING	OPERATING BUDGET	$	-
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	1,300,000
	UNH PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	1,300,000
IF BONDED:	NUMBER OF YEARS		20
	TOTAL PRINCIPAL	$	1,300,000
	TOTAL INTEREST	$	480,800
	TOTAL ESTIMATED COST	$	1,780,800

CAPITAL IMPROVEMENT PROGRAM

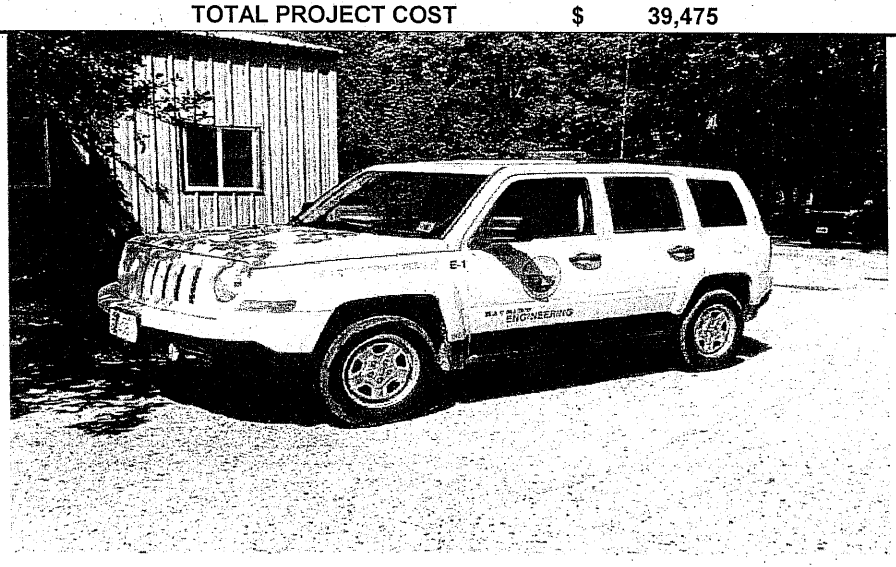
PROJECT YEAR	*2026*	**EQUIPMENT COST**	*$37,000*
DESCRIPTION	*Engineering Jeep Replacement*	**DEPARTMENT**	*Public Works - Operations/Engineering*

DESCRIPTION (TO INCLUDE JUSTIFICATION):

The 2014 Jeep Patriot is scheduled for replacement in 2026. This vehicle serves to transport the Engineering Division between various job sites, sometimes traversing rugged terrain. Durham Public Works is proactively exploring alternative fuel options for this upcoming acquisition, including electric and compressed natural gas (CNG) solutions. This vehicle is on a 10-12 year replacement plan.

Vehicle to be Replaced: 2014 Jeep Patriot

ESTIMATED COST	PURCHASE PRICE	$	40,000
	ACCESSORIES*	$	-
	LESS TRADE-IN**	$	(3,000)
	NET PURCHASE PRICE	$	37,000
	*Accessories include lighting, radios, striping, misc. equipment.		
FINANCING	OPERATING BUDGET	$	-
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	37,000
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	37,000
IF BONDED	NUMBER OF YEARS		3
	TOTAL PRINCIPAL	$	37,000
	TOTAL INTEREST (EST'D)	$	2,475
	TOTAL PROJECT COST	$	39,475



CAPITAL IMPROVEMENT PROGRAM

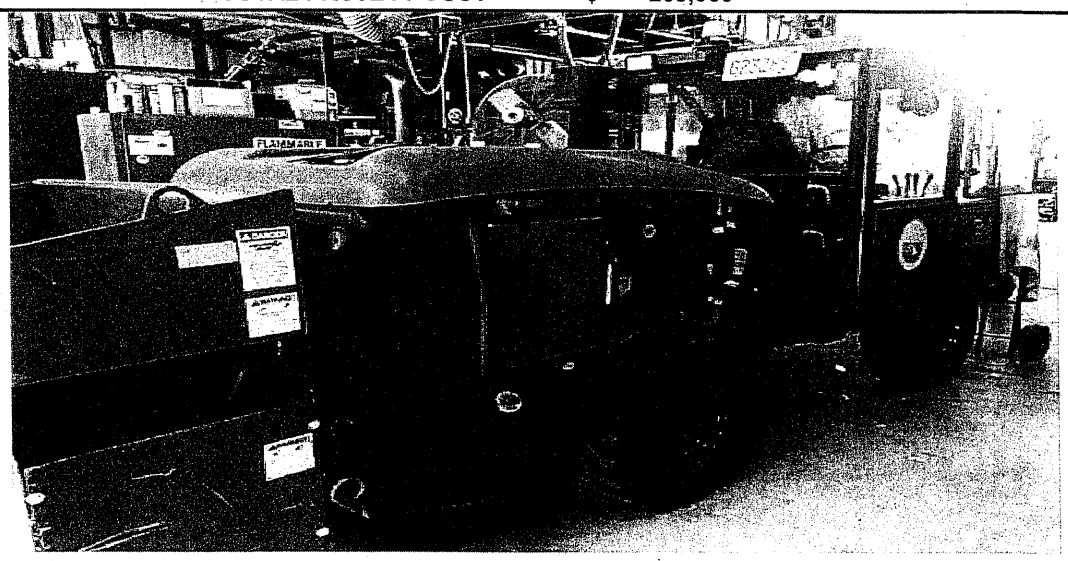
PROJECT YEAR	*2027*	**EQUIPMENT COST**	*$240,000*
DESCRIPTION	*Sidewalk Plow Tractor Replacement*	**DEPARTMENT**	*Public Works - Operations*

DESCRIPTION (TO INCLUDE JUSTIFICATION):

The 2012 Maclean MV2 Sidewalk Tractor is scheduled for replacement in 2027. Durham has over 15 miles of sidewalks, many of which receive significant daily use. Durham Public Works is requesting funding to purchase a Prinoth SW50 which is a municipal snow removal vehicle engineered and designed for snow removal and clearing of sidewalks in compact municipal settings. The Prinoth SW50 is equipped with a versatile quick-mount attachment system, allowing it to be fitted with various standard skid-steer implements like snow blowers, power angle front blades, and V-plows. This specialized, powerful tracked vehicle is capable of handling even the most challenging snow and ice clearing tasks, especially in tight spaces, making it highly effective during severe storms. Additionally, the Prinoth SW50 serves as an efficient snow blower, enabling quick loading of trucks during snow removal operations. This feature is particularly valuable for efficiently managing the snow removal and hauling processes in Durham's business district and parking lots. Durham Public Works is proactively exploring alternative fuel options for this upcoming acquisition, including electric and compressed natural gas (CNG) solutions.

Vehicle to be Replaced: 2012 Maclean MV2 Sidewalk Tractor

ESTIMATED COST	**PURCHASE PRICE**	**$**	**243,000**
	ACCESSORIES*	**$**	**-**
	LESS TRADE-IN**	**$**	**3,000**
	NET PURCHASE PRICE	**$**	**240,000**
	***Accessories include lighting, radios, striping, misc. equipment.**		
FINANCING	**OPERATING BUDGET**	**$**	**-**
	UNH - CASH	**$**	**-**
	BOND - TOWN PORTION	**$**	**240,000**
	FEDERAL/STATE GRANT	**$**	**-**
	CAPITAL RESERVE ACCOUNT	**$**	**-**
	TOTAL FINANCING COSTS	**$**	**240,000**
IF BONDED:	**NUMBER OF YEARS**		**5**
	TOTAL PRINCIPAL	**$**	**240,000**
	TOTAL INTEREST (EST'D)	**$**	**25,300**
	TOTAL PROJECT COST	**$**	**265,300**



CAPITAL IMPROVEMENT PROGRAM

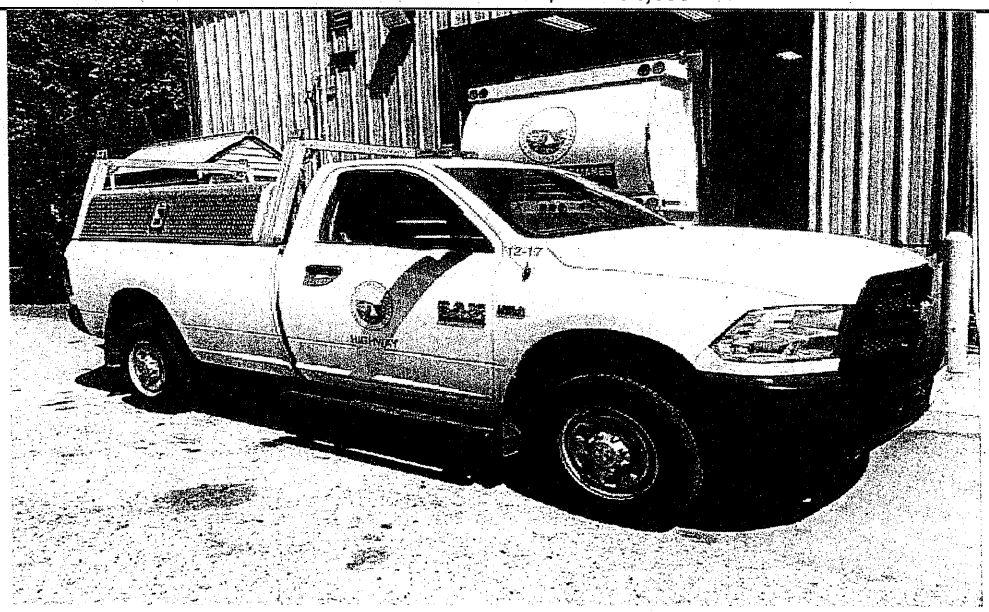
PROJECT YEAR	*2027*	**EQUIPMENT COST**	*$67,000*
DESCRIPTION	*Pickup Truck Replacement - Dodge Ram 2500*	**DEPARTMENT**	*Public Works - Operations*

DESCRIPTION (TO INCLUDE JUSTIFICATION):

Durham Public Works will be replacing the Operations Manager's 2017 Dodge Ram 2500 Pick-up truck in 2027. This vehicle serves as an essential means of transportation for the Operations Manager, dedicated to the daily upkeep and management of critical infrastructure, including roads, bridges, dams, utilities, traffic control, stormwater management, snow plowing, emergency response and annual cleanups. Considering the wide range of responsibilities assigned, it is imperative that the replacement truck be outfitted with the necessary features to accommodate various pieces of specialized equipment and responses. The truck must be capable of transporting tools such as chain saws, pavement saws, mechanical equipment, repair tools, hand tools, marking paints, survey equipment, and other necessary gear. To meet these requirements, Durham Public Works proposes replacing the current vehicle with a one-ton truck, incorporating a utility body and plow package. The utility body ensures ample storage and organizational capacity for the various equipment and tools utilized by the Operations Manager. Additionally, the inclusion of a plow package enhances the vehicle's useability during snow plowing operations, further optimizing its functionality throughout the year. Durham Public Works is proactively exploring alternative fuel options for this upcoming acquisition, including electric and compressed natural gas (CNG) solutions. This vehicle is on a 10-12 year replacement plan.

Vehicle to be Replaced: 2017 Dodge Ram 2500

ESTIMATED COST	**PURCHASE PRICE**	**$**	**72,000**
	ACCESSORIES*	**$**	**-**
	LESS TRADE-IN**	**$**	**(5,000)**
	NET PURCHASE PRICE	**$**	**67,000**
	***Accessories include lighting, radios, striping, misc. equipment.**		
FINANCING	**OPERATING BUDGET**	**$**	**-**
	UNH - CASH	**$**	**-**
	BOND - TOWN PORTION	**$**	**67,000**
	FEDERAL/STATE GRANT	**$**	**-**
	CAPITAL RESERVE ACCOUNT	**$**	**-**
	TOTAL FINANCING COSTS	**$**	**67,000**
IF BONDED	**NUMBER OF YEARS**		**3**
	TOTAL PRINCIPAL	**$**	**67,000**
	TOTAL INTEREST (EST'D)	**$**	**7,300**
	TOTAL PROJECT COST	**$**	**74,300**



CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2030*	**EQUIPMENT COST**	*$232,500*
DESCRIPTION	*Replacement of Rubber Tired Excavator*	**DEPARTMENT**	*Public Works Operations/ Water*

DESCRIPTION (TO INCLUDE JUSTIFICATION):

The 2013 Volvo EW160D Rubber-Tired Excavator is scheduled for replacement in 2030. This is one of the most critical pieces of front-line equipment for Public Works projects and emergencies, delivering a multitude of indispensable benefits across various critical tasks and Divisions. The excavator's versatility allows it to be utilized across nearly all of our Public Works projects. It is irreplaceable when faced with water main breaks, performing roadside mowing, completing large and small drainage projects, excavating culverts, and roadside ditching. The machine's rubber tires add a valuable dimension to its capabilities, enabling it to be driven from site to site. This mobility feature eliminates the need for additional transportation equipment, streamlining logistics and reducing operational costs. Durham Public Works is proactively exploring alternative fuel options for this upcoming acquisition, including electric and compressed natural gas (CNG) solutions.

The total cost for this piece of equipment is $310,000. The cost is being shared 75% Operations and 25% Water Fund.

Vehicle to be Replaced: 2013 Volvo EW160 D Rubber-Tired Excavator

ESTIMATED COST	**PURCHASE PRICE**	**$**	**232,500**
	ACCESSORIES*	**$**	**-**
	LESS TRADE-IN**	**$**	**-**
	NET PURCHASE PRICE	**$**	**232,500**
	***Accessories include lighting, radios, striping, misc. equipment.**		
FINANCING	**OPERATING BUDGET**	**$**	**-**
	UNH - CASH	**$**	**-**
	BOND - TOWN PORTION	**$**	**232,500**
	FEDERAL/STATE GRANT	**$**	**-**
	CAPITAL RESERVE ACCOUNT	**$**	**-**
	TOTAL FINANCING COSTS	**$**	**232,500**
IF BONDED	**NUMBER OF YEARS**		**5**
	TOTAL PRINCIPAL	**$**	**232,500**
	TOTAL INTEREST (EST'D)	**$**	**24,500**
	TOTAL PROJECT COST	**$**	**257,000**